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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,635	09/30/2003	Jae-Goo Choi	1235-6 (SP2003US)	6064

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EXAMINER
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ALAM, FAYYAZ

ART UNIT	PAPER NUMBER
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2618

MAIL DATE	DELIVERY MODE
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05/18/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/675,635	Applicant(s) CHOI ET AL.	
	Examiner Fayyaz Alam	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This action is in response to applicant's amendment/arguments filed on 2/8/2007.

**This action is made FINAL.**

#### ***Response to Arguments***

Applicant's arguments filed 2/8/2007 have been fully considered but they are not persuasive.

Applicant argues that the user interface device or UID according to Bick's disclosure operates simultaneously as a keypad and a touch screen while the applicant's disclosed invention operates the keypad and a touch screen selectively and independently according to a mode of operation.

Examiner respectfully disagrees. Bick on pg. 4, lines 18 - 19 clearly disclose that the keypad and the touch sensitive pointing device (read as touch screen) may operate simultaneously or **independently** (read as selectively and exclusively). Therefore, Bick anticipates that the keypad function and the touch screen function can be used independently, where inherently the power would be supplied to one function or the other at a given time.

Applicant's arguments with respect to claim 4 have been considered but are moot in view of the new ground(s) of rejection.

Please see claim 4 rejection below.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1 - 3, and 7** are rejected under 35 U.S.C. 102(b) as being anticipated by **Bick (UK Application # GB 2,367,530)**.

Consider **claim 1**, Bick discloses a keypad assembly for mobile handset (read as portable radiotelephone) comprising (see figure 3):

A flexible substrate (31) (read as printed circuit board) having a plurality of metal domes (32);

A silicone rubber (17) (read as keypad rubber) placed on the flexible substrate (31) (read as printed circuit board) have raised surface with numerals aligned with the positions corresponding to the metal domes (32) (see figure 3, element 18; figure 4; pg. 4, lines 9 - 10);

A sensing means (19) disposed on the silicone rubber (17) (read as keypad rubber; see figure 3); and

A keymat (17) (read as key button part) disposed on the sensing means, whereby a touch screen function is selectively activated from the keypad interface (see figure 2) when user slides their finger over surface of the keymat (17) (read as key button part), where, keypad (7) can **independently** (read as selectively and exclusively; see pg. 4, lines 18 - 19) operate as a conventional keypad (read as key button function)

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and a touch pointing device (read as touch screen function) according to an inherent operation of selecting an input mode (read as a touch screen function using the sensing means or a key button function electrically contacting the metal domes is selectively and exclusively used according to an input mode of the radiotelephone; see pg. 4, line 30 - pg. 5, line 5).

Consider **claim 2** as applied to claim 1, Bick discloses sensing means is a capacitive sensor (see pg. 3, lines 26 - 28).

Consider **claim 3** as applied to claim 1, Bick discloses keymat (17) (read as key button part) is attached to optical adhesive layer (27) (read as film sheet) which is attached to the upper surface of the sensing means (19), the optical adhesive layer (27) (read as film sheet) by way of keymat (17) that has numbers printed on it (see figure 3; figure 4; pgs. 4 - 5, lines 31 - 33 and 1 - 3).

Consider **claim 7**, Bick discloses a device and thereby a method for independently (read as exclusively) operating a keypad (7) as a conventional keypad or as a touch sensitive pointing device (read as physically integrates touch screen panel and can alternatively function as a touch screen panel; see pg. 4, lines 18 - 19) in a portable radiotelephone (see figs. 1 - 6), comprising the steps of:

Determining whether or not user slides their finger over the surface (read as input mode shift key) of the keymat (17); since the keypad (7) is operable to function **independently** as a touch sensitive pointing device or a conventional keypad it would inherently have a step to determine which mode is actuated (see pg. 4, lines 18 - 19; pg. 5, lines 4 - 5);

The above stated sliding action (read as input mode shift key) shifts the mobile device from keypad input mode to touch screen mode, where, the independent (see pg. 4, lines 18 - 19) functionality feature of the keypad (7) would inherently yield such a step and input mode shift key (see pg. 5, lines 3 - 16; pg. 4, lines 18 - 19); and

The keypad (7) can operate in the keypad mode either independently or simultaneously as a touch sensitive pointing device, therefore, it would be inherent to cut off a driving power supplied to the conventional keypad, and supplying the driving power to the touch screen panel while the keypad (7) is in touch sensitive mode and operating independently (see pg. 4, lines 18 - 19).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Claxton (USPN 6,448,919)** in view of **Bick (UK App. # GB 2,367,530)**.

Consider **claim 4**, Claxton discloses mobile communication device comprising an input unit having a keypad (118) and a touch panel (310);

A microprocessor (308) (read as control unit) for generating control signal to operate the input unit as the touch panel (310) or as keypad (118) according to a mode set by a user by closing or opening the flip cover (see column 3, lines 2 - 10; column 4, lines 8 - 12).

A power supply unit (figure 1 shows 3.3 volts) that supplies power through switching circuit to keypad (118) or touch panel (310) (see column 6, lines 58 - 67; column 7, lines 1 - 7; column 8, lines 15 - 23) which can selectively switch on or off either the keypad or the touch panel.

However, Claxton fails to explicitly disclose a keypad which physically integrates a touch screen panel and a control signal to operate the input unit exclusively as a touch screen or as a keypad.

In the related field of endeavor, Bick discloses a keypad (7) (read as input unit) which operates as a conventional keypad and independently (read as exclusively) as a touch sensitive pointing device (read as touch screen panel and physically integrates touch screen panel) (see pg. 4, lines 18 - 19, figs. 1 - 6).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Claxton with the teachings of Bick in order to provide a dual mode user input, where, a touch screen feature is provided for user convenience to browse web pages as disclosed by Bick.

**Claims 5 - 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Claxton (USPN 6,448,919)** in view of **Bick (UK Patent Application # GB 2,367,530)** and further in view of **Honda (U.S. Application # 2003/0185444)**.

Consider **claim 5** as applied to claim 4, Bick fails to disclose a character recognition unit for converting a coordinate value into a character code when the input unit functions as the touch screen panel, the coordinate value being produced from the input unit by a user's contacting an upper surface of the touch screen panel.

In the related field of endeavor, Honda discloses a handwritten character recognition part (see [0025]) to receive input from a touch panel (see [0007]) and convert it to character code (see [0008]) from stored coordinate values (see [0015]).



Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Claxton and Bick with the teachings of Honda in order to save time and money by using well-established technology.

Consider **claim 6** as applied to claim 5, Bick fails to disclose a display unit for displaying a character corresponding to the character code from the character recognition unit.

In the related field of endeavor, Honda discloses a display part (read as display unit) to display a character (see [0019 - 0025]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Claxton and Bick with the teachings of Honda in order to save time and money by using a well-established technology.

**Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Bick (UK Patent Application # GB 2,367,530)** as applied to claims above, and further in view of **Claxton (U.S. Patent # 6,448,919)**.

Consider **claim 8** as applied to claim 7, Bick discloses determining whether or not user slides their finger over the surface (read as input mode shift key) of the keymat (17) (see pg. 5, lines 4 - 5).

Bick fails to disclose shifting the input-mode from a touch screen input mode to a keypad input mode if the input mode shift key is inputted; and cutting off the driving

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power supplied to the touch screen panel, and supplying the driving power to the keypad.

In the related field of endeavor, Claxton discloses switching circuit which would allow power control and selective switching from touch panel mode to keypad mode while cutting off the power to one or the other (see column 6, lines 58 - 67; column 7, lines 1 - 7; column 8, lines 15 - 23)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Bick with the teachings of Claxton in order to integrate a switch to select between the two input modes.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Fayyaz Alam whose telephone number is (571) 270-1102. The Examiner can normally be reached on Monday-Friday from 9:30am to 7:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

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more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

*Fayyaz Alam*

April 30, 2007

EDAN ORGAD  
PRIMARY PATENT EXAMINER

*E/Or Orgad 5/16/07*